ROLAND αJUNO-1

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With the dollar currently riding the fiscal seesaw at warp speed, it is getting more difficult to define the budget end of the synth market. But, say you have $1,000 (give or take a few devolving hundreds), there is no shortage of choice. Roland's challenge is the Juno-1, a six-voice machine combining complex waveforms with simple operation. It does offer more for less but is it enough?

At the supermarket each week it seems you pay more and get less. In a time, not too far from now, food may be a luxury but we'll have wall-to-wall MIDI poly synths and sundry items to distract the hunger.
Eight Synclaviers and a can of baked beans please... The value-for-money race – in budget synths, not mortgage-inducing beans – is escalating. Casio sent a few big name boffins scurrying back to their drawing boards a while back when it launched the amazingly cheap and capable CZ101. A new standard was set in the bargain basement and it hasn't really been challenged yet. And we may wonder... can they do more for less? Dangerous questions these because we know it's inevitable, even if it's impossible! So the cheap 'n' powerful candidates are rolling up with their under-$1000 price tags writ large in the busy marketplace. First on the racks... Roland's new baby, the (alpha) Juno-1.

Why does 1 come after 6 and 106? It may refer to the DCO or it may be a new beginning in simple numeric titles. That would be a relief. But this is not an updated Juno-106, I am informed from the start by the Roland people. It's an entirely new way of creating sound. Intrigued?
Well, it is not entirely new although it is a departure in the Roland budget department. The test model arrived without manual or spec, so I can't rattle off revealing figures but the sound source is derived through a newly designed LSI chip which enables the use of complex waveforms. This kind of system has been used successfully by Korg on the DW6000 and the new DW8000 and it does allow a wide range of sound creation. But, more on this
later.

It's slim and light, with a four-octave C-to-C keyboard, not many knobs. Touch-membrane switches, illuminated LCD, sombre grey metallic casing with minimum, but coordinated, colour. All very modern.
So far, so boring. It's a bit like all those cars (Lasers and umpteen hatchbacks) that all look the same bar a stick-on racing stripe or something. Still, if aesthetics are the only things that suffer in this price war then perhaps it is a small complaint.
The Juno-1 is a digital/analogue hybrid and the accent has been firmly placed on simple operation and sound quality without a

plethora of 'extras'. No arpeggiator or token sequencer; not bitimbral, no cartridge facility, no touch-sensitive keyboard.
Saving is to tape which is a painstaking and often hazardous-business and I was surprised to find it here even at this price. And on the last point... the synth does respond to (read) velocity and after-touch information when used as a slave, which is a sensible design because, unless you're on a really tight budget, this machine would probably always be a slave.

THE PANEL
On the left, the modulation and pitch bend combine in one toggle wheel. This works smoothly and fine merging of the two, or independent use, is possible. Above that, you have Portamento on/off and Chord Memory on/off which, in the absence of a solo feature, allows you to get some fat, bassy mono sounds. Then, Octave transpose down (one octave) or normal, and a volume slider.
Top left is the key to the Juno's design – the 'alpha dial'. This is the new big thing in parameter/value-style editing. I first discovered it on Akai's AX80 and it is an excellent feature. It has a hole moulded for the fingertip and it wheels freely left and right to program and assign functions.

Along the front to the right of the LCD are the master controllers Preset and Memory with two rows each with eight touch-membrane switches. The top row is bank numbers, the second for switching through each bank for a total of 64 presets and 64 programmable locations.
The bottom row has a double function whereby the first five switches, when used with the matching blue Data Transfer control on the far left, command bulk load and tape save/verify/load. When you press Data Transfer, the message 'Select type...' comes up on the screen and you press the appropriate key simultaneously. To cancel the mode, press the key again after releasing Data Transfer.

Top left is the Tune Function (press, then use the alpha dial to move either side of A-440 which is shown on the screen). This is really useful and the Juno could be used as a tuning reference in a keyboard system without having to purchase a dedicated tuner. Other func5ons in this block include Key Transpose (which was faulty on the test model, jamming either on or off); Data Transfer (blue) and MIDI switch.
Again, use the alpha dial to sweep through MIDI channels (1-16) and keep pressing the MIDI switch to check assignments: omni, local (for turning the Juno keyboard off), after-touch, bender, exclusive, hold, modulation, program change, volume (velocity) and portamento. They are all on/off choices.
The editing section (left of the LCD) is extremely simple to use. Parameter select brings parameter information up in the LCD and then (as in all following procedures) use the alpha wheel to go through them. Press Value and you will see first the set value, with an arrow pointing to the changing value (as you turn the dial). The Name switch allows you to change the name of each patch by turning the dial (through the alphabet) then press Name again to move the cursor to the next character etc. The Write button (orange) is used (surprise!) to write or copy patches to new locations.
Use that part of the editing block when you want to make wholesale changes. When you want to modify modulator (rate and depth), brilliance (four steps up or down) or envelope release time (three steps either way) you use the Tone Modify controls.
For live work this simplified form of editing is excellent, just like the old analogue panel with sliders and knobs. You don't have to think in numbers and values, just press the switch and turn the dial.

THE SOUND
The DCO range is 32', 16', 8', 4' and the sub oscillator (this harks back to Roland's little

SH101 mono synth) has one or two octave selection for putting more bottom end in the sound. On the far right of the panel two 'charts' clearly show the pulse, sawtooth and sub waveform configurations and the eight-step envelope.
The envelope is edited in a similar way to the Casio process with five 'time' edit points and three level points. It means that you have much finer control over shaping the sound than with a simple ADSR system, but you have to picture the envelope shape in your head as you can only edit one parameter at a time.
I would sti11 prefer to have outboard control of the envelope although that problem is overcame to some extent by having quick access to release time through the Tone Modify section as explained before.
But the addition of complex waveforms in a budget synth is really smart because it does mean that you can get close to the sound of more expensive machines on both sides – analogue and digital.
More praise... for the built-in chorus which can be changed in the mod-rate/mod-depth part of the Tone Modify section or by parameter editing. It has a 0-121 step rate which goes from tasteful phasing effects, to deep swell, to silly sounds. It is a very clean device (no noise when keys are released), adding great width to the analogue sounds and a healthy shimmer to percussive ones.
Going through the factory sounds (which may not be what you get when the synth goes on sale)...

Well, it does, of course, sound very Roland and that is not a criticism. Big washes of warm strings, good brass and bass sounds are typical, but there are some excellent capabilities here too for plucked and percussive sounds. Taking away the chorus effect they do begin to sound a bit dry but not awful, and they do retain their 'character' sound. The Juno can come up with interesting harps, timpanis, electronic drum sounds with echo effects (from the synth), quite good piano sounds. These last are a good test of using cross modulated harmonics to get slightly glassy and metallic percussive piano sounds.

The presets can be modified and copied into memory locations. And the patches can be set to receive dynamic information via DCO, VCF and VGA so you can, using a touch-sensitive master, get a punchy sound out of it. And although this is a 49-note keyboard it will accept the full 88-note range from an appropriate master. The back panel has MIDI In, Out, Thru and ports for foot pedal control of expression, dynamics and after-touch. (The last two are for varying the degrees of expression via the optional foot pedals. They were not provided for test.) And there is a stereo or mono out.

WHO WILL BUY

The Juno-1 performs well; it's easy to use,(perhaps the easiest yet) and offers a wide range of quality sound. The performance aspect is good – with a firm keyboard, good pitch bend/mod and quick access to the most usually altered parameters.
The alpha dial is the way to go but this one spins a bit too freely for my liking. It is easy to skip past the parameters you're looking for and I had to keep back-pedalling to find them.
There's lots of competition about but comparing it with the CZ101, which I know, this six-voice machine certainly wins for its big analogue sounds, simple operation and dynamic facilities.
The Casio on the other hand, is four-voice on two oscillators or eight on one; is bitimbral (with tone mixing facility) and can play four (mono) MIDI parts at once which is excellent for sequencing.
If you're in the market for a good-sounding slave synth which is easy to use live then the Juno-1 might be just what you need. If you want more flexibility you might do better.